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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/720,149	12/21/2000	Pict S. Wauters	PHN17.577	7538

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PHILIPS ELECTRONICS NORTH AMERICAN CORP
580 WHITE PLAINS RD
TARRYTOWN, NY 10591

EXAMINER

CHEN, TSE W

ART UNIT	PAPER NUMBER
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2116

DATE MAILED: 12/23/2003

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/720,149

Applicant(s)

WAUTERS ET AL.

Examiner

Tse Chen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,6 and 8 is/are rejected.
- 7) ☒ Claim(s) 3,4 and 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on December 21, 2000 was filed before the mailing date of the first Office Action. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the examiner has considered the information disclosure statement.

Specification

2. The abstract of the disclosure is objected to because of minor informalities: the phrase “operates independent” on line 7 should be “operates independently”; and the label “Fig.1” at the end of the abstract is inappropriate. Correction is required. See MPEP § 608.01(b).

3. The disclosure is objected to because of the following informalities: the title should be capitalized on page 1; the sentence on line 20 of page 2 should read “It is an object of the invention to provide...”; the sentence on line 21 of page 3 should read “... off *and* on...”; the sentence on line 15 of page 4 should read “... are connected *to* the low...”; and the word “Slave” on line page 13 of page 5 should not be capitalized.

Appropriate correction is required.

4. Claim 6 is objected to because of the following informalities: line 26 on page 9 should read “... from the stand-alone mode *to* the slave mode...”. Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 5, and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Endo, U.S.

Patent 6363491.

7. As per claims 1 and 8, Endo taught an invention comprising:

- a USB bus system with a host station, bus cable, and devices coupled to the host via the cable [FIG.2; column 1, lines 65-66];
- the bus cable comprising of data and power supply conductors with the device able to obtain operating power from bus [FIG.3; column 1, line 65 to column 2, line 3];
- the device with connecting means to the cable and a control circuit coupled to the connector [FIG.3; items 20a and 20c];
- the control circuit detects whether there is power on power supply conductors [FIG.4; column 5, lines 10-15];
- waiting in slave mode to receive commands via the data conductor if there is power on power supply conductors [column 3, lines 57-67]; and
- operating as stand-alone if no power is detected on power supply conductors [column 4, lines 1-5; column 8, lines 24-26].

8. As per claim 5, Endo taught the control circuit to operate in all modes and switching from one mode to another based on power supply detection [column 3, line 39 to column 4, line5].

Claim Rejections - 35 USC § 103

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9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Endo in view of Tsai et. al., U.S. Patent 6101076, hereinafter referred to as Tsai.

11. Endo taught a bus-powered device capable of detecting the absence of power supply from the bus cable and transition to a different mode of operation as a result. Specifically, Endo taught a control circuit that can output a voltage signal to enable/disable a pull circuit based on the presence of power supply detected [column 4, lines 48-51]. However, Endo did not explicitly disclose the pull circuit, which is well known in the art and part of the USB standard, leaving the choice to the designer.

12. Tsai taught a USB system that can simulate a unplug-and-replug action when there are bad electromagnetic interferences comprising:

- a pull circuit pulling potential of data conductor away from potential of power supply conductor [FIG.3, item 31];
- determining the device's connectivity by detecting the potential of the data conductor [column 1, lines 58-62; column 4, lines 51-52]; and
- a pull circuit pulling potential of data conductor to potential of power supply conductor [FIG.6, item 62; column 6, lines 14-16, lines 40-43].

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13. An ordinary artisan at the same time the invention was made would have been motivated to look for a circuit that can pull back the potential of the data conductor on a USB system similar to Endo's in order to simulate disconnection from the host once the absence of power supply on the bus has been detected. The pull circuit as taught by Tsai can readily be integrated by an ordinary artisan skilled in the art to take in the voltage output provided by Endo to accomplish the desired intent.

14. Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Endo and Tsai in order to provide a circuit that would "disconnect" the peripheral device from a USB host in the event that there is an absence of power supply on the bus system.

Allowable Subject Matter

15. Claims 3-4, and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

16. The following is a statement of reasons for the indication of allowable subject matter: the claims may be allowable because none of the references, either alone or in combination discloses or renders obvious a bus-powered device with a circuit for pulling-back the potential of a data transfer conductor from one of the power supply conductors with the specific composition and configuration as described in the designated claims.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

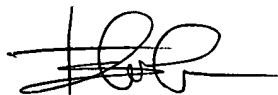
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- Philips Semiconductors, "Universal Serial Bus Standard", May 1996, details the standards established.
- Rothenbaum, U.S. Patent 6128743, disclosed an invention to switch a USB hub between bus-powered and self-powered mode.
- Larky et. al, U.S. Patent 6105097, disclosed an invention to interconnect USB's and provide power management amongst them.
- Sartore et. al., U.S. Patent 6012103, disclosed an invention to reconfigure a USB peripheral device based on manufacturing specifications.
- Flannery, U.S. Patent 5799196, disclosed an invention to provide power management with USB self-powered devices.

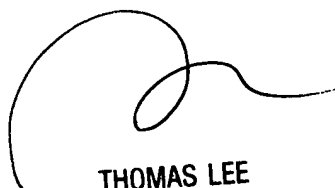
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tse Chen whose telephone number is (703) 305-8580. The examiner can normally be reached on Monday - Friday 9AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Lee can be reached on (703) 305-9717. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.



Tse Chen
December 15, 2003



THOMAS LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100